IN THE DRAWINGS

Please cancel sheets 2 of the formal patent drawings filed with the application and consisting of Figs. 3 and 8. Please replace that cancelled sheet of drawings with the enclosed replacement sheet 2, also consisting of Figs. 3 and 8.

REMARKS

Applicants, their principal representatives in Germany, and the undersigned have carefully reviewed the first Office Action on the merits in the subject U.S. patent application of July 20, 2007, together with the prior art cited and relied on by the Examiner in the rejections of the claims. In response, the specification, drawings and claims of the application have been amended. It is believed that the claims now pending in the application are patentable over the prior art cited and relied on by the Examiner, taken either singly or in combination. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

As set forth in the Substitute Specification, as depicted in the several sheets of formal patent drawings and as set forth in the currently amended claims, the subject invention is directed to a web draw-in device and to a method for drawing in at least one web of material. As may be seen by initially referring to Fig. 1 of the drawings, a web of material 01 is directed into a web folding apparatus that includes a superstructure 03. In that superstructure 03 there are provided, a longitudinal web cutter 04, a turning deck 16, at least one former and a transverse cutting device 24. In the turning deck 16, which is after, in the direction of web travel, the longitudinal cutter 04, the partial webs which have been formed by the longitudinal cutting of the web 01, are typically placed on top of each other or are otherwise assembled. The web is passed down over at least one longitudinal fold former 08 which, as its name implies, forms a longitudinal fold line to the web. The folded web is then directed to the transverse cutting device, generally at 24, where it is cut into a plurality of signatures that are then typically cross-folded.

The web or webs 01 is or are an endless web or webs. Once the web or webs have been guided through the complex web folding apparatus, by a suitable web draw-in device, the printing press will operate in a normal manner. However, before that normal printing press operation can be initiated, the web or webs which are being printed, cut, turned, formed, folded

and transversely cut, have to be fed into the web folding apparatus. The web draw-in device and its method of use, in accordance with the present invention, accomplish that web draw-in.

A web guide 09 extends, from a location before the superstructure 03, through to at least an inlet to the transverse cutting device 24. In the embodiment of the present invention, as is shown in Fig. 5, the web guide 09 extends through the transverse cutting device 24. In the embodiment that is shown in Fig. 7, the guide roll 09 terminates at an inlet to the transverse cutting device 24. In the several depicted embodiments of the present invention, as may be seen most clearly in Fig. 4, the guide rail 09 includes a twisted guide rail section. This twisted guide rail section is located adjacent the longitudinal fold former generally at 08. As the web or webs are drawn through the web folding apparatus, which includes the former 08, the orientation of the web changes. Before the web 01 enters the former, its plane is perpendicular to the plane of Fig. 1. Once the web has passed the former, its plane is parallel to the plane of Fig. 1. This reorientation of the web can be seen most clearly in Fig. 4 by viewing the three sequentially depicted orientations of the arm 19. That arm 19 is attached to the chain element 51, as seen in Fig. 2, which chain element carries the arm 19 along the guide rail 09. As seen in Fig. 2, the arm 19 engages a leading edge of a paper web 01 and draws the web through the web folding apparatus. The reorientation of the arm 19 can be seen in Fig. 4 where the arm 19 is initially parallel to the plane of Fig. 4 and is then rotated through generally 90° so that it is perpendicular to the plane of Fig. 4. In this regard, the orientation of the arm 19 conforms to the orientation of the guide rail 09 which supports and guides the paper leading end holding device or arm 19.

In the first Office Action of July 20, 2007, claims 55, 56, 78-92, 93-100, 103 and 104 were rejected under 35 USC 102(b) as being anticipated by U.S. patent No. 6,821,240 to Ruckmann. Claims 52-64 were rejected under 35 USC 103(a) as being unpatentable over Ruckmann in view of U.S. patent No. 6,269,751 to Hauck. Claims 65-72, 101 and 102 were rejected under 35 USC 103(a) as being unpatentable over Ruckmann in view of U.S. patent No.

3,544,454 to Muth. Claims 77 and 93 were rejected under 35 USC 103(a) as being unpatentable over Ruckmann in view of U.S. patent No. 5,699,735 to Stein.

Since independent apparatus claim 55 and independent method claim 97 are the two independent claims in the subject application, and since both were rejected under 35 USC 102(b) as being anticipated by U.S. patent No. 6,821,240 to Ruckmann, the rejections of these two claims will be addressed initially. In the Ruckmann patent there is shown a longitudinal fold former, generally at 18. A web, webs or a web train, 05, 06, 07, 11 and 12 is drawn into the longitudinal fold former 18 and up to the inlet of a pair of folding rollers 13 and 14. This is accomplished by engagement of these webs, at a point just before the longitudinal fold former, with finite length draw-in traction means, 33, 34, as may be seen most clearly in Fig. 2. These traction means 33, 34 are belts or chains that carry what are essentially spikes 35. The spikes 35 puncture the paper web or webs at the point where the web or webs pass between a pair of rollers 59 and 60.

As may be seen quite clearly in Fig. 2, the traction means 33, 34 are guided by spaced rollers 43, 47, 49, 50, 54 and 56. It is these rollers that support the traction means 33, 34 during their drawing in of the web or webs across the longitudinal fold former and to the two folding rollers 13 and 14. The specification of the Ruckmann patent describes various rail guides 80, 88, 89, which as recited at Column 8, lines 10 and 11, are arranged on the back of the hopper plate 21. That hopper plate 21 is the top or face plate of the longitudinal fold former 18. These rail guides would be used if there was only one single path 121 along which the tractor means 33, 34 passed during draw-in of the paper web over the longitudinal fold former 18.

Endless guides 88 may be fixed on frames 80, as seen in Figs. 11 and 12. Again, these frames or guides are depicted, in Fig. 11, as being secured to the undersurface of the hopper plate 21. Note also the depiction of the traction means 33, 34, with their associated spikes 35, supported by the guides 98, 80, 88, as seen in Fig. 13. Those guides are located beneath the central plate 21 of the longitudinal fold former.

It is to be noted that asserted guide rail 94, as indicated in the first Office Action is actually the bottom of a guide channel. This can be seen most clearly in Fig. 12. Similarly, element 96 is a side wall of a guide channel, also as may be seen in Fig. 12.

Fig. 21 shows a movable support for the endless or finite length tractor means 33, 34. The movable support can be moved toward or away from the central support plate 21 of the Ruckmann device. Other figures of this reference show other essentially elongated, straight guide rails or paths for use in guiding the endless or finite traction means 33, 34.

Independent claim 55, as currently amended, is neither anticipated, or rendered obvious by the Ruckmann reference. Claim 55 recites a web draw-in device comprising a web folding apparatus indicating a superstructure. Ruckmann does not disclose, or suggest a superstructure. That term has a definite meaning in the art and includes web slitters and a turning deck. Ruckmann shows only a longitudinal fold former and the portion of its device immediately before the fold former. In currently amended claim 55 there is recited a transverse cutting device located after, in the direction of web travel, the former. In the Ruckmann reference there are shown two folding rollers 13 and 14 located after the former. Ruckmann discusses, at Column 14, lines 25-35 the provision of a transverse cutting unit of a transverse folding unit. There is not discussion with respect to that device's location or to the location of a rail-like guide with respect to that transverse cutting unit.

Claim 55, as currently amended, recites at least one guide rail which is adapted to receive a paper leading end holding device. That holding device is exemplified by the arm 19, as seen in Fig. 2 and others of the subject application. The guide rail extends from the superstructure, past the former and to at least an inlet to the transverse cutting device. Ruckmann shows rail-like guides which are adjacent, or which cooperate only with the central plate 21 of the longitudinal fold former.

Claim 55, as currently amended, further recites at least one twisted guide section in the guide rail. That at least one twisted guide rail section is located adjacent to the at least one former. Ruckmann does not show, or suggest any twisted guide rail section or sections.

The language regarding the twisted guide rail section was added to claim 55 from claim 58 which has now been cancelled. Claim 58 was not rejected as being anticipated by the Ruckmann reference. Instead, it was rejected as being obvious over Ruckmann in view of Hauck. In the rejections of claims 57-64 as being unpatentable over Ruckmann in view of Hauck, it is asserted that Hauck discloses that it is well-known in the art to provide displaceable guide rails with articulated sections.

The Hauck reference is directed to a length variable sliding rail element that enables a roller chain to be easily guided. Two complimentary sliding rail sections fit together in a telescoping manner. The resultant sliding rail element is shiftable between collapsed and extended positions. These two sliding rail elements are usable to provide a length variable guide rail element. The teachings of the secondary Hauck reference do not supply the teachings of at least one twisted guide rail section in the guide rail, with that at least one twisted guide rail section being located adjacent the former. Ruckmann shows endless flexible belts or chains. It also shows elongated guide rails that are situated either beneath, or in cooperation with a central plate 21 of the longitudinal fold former. In the Ruckmann reference, where the endless traction means 33, 34 pass down the slide face 41 of the former plate 21, they then slide down over the faces of the hopper flank plates 55 and 65. While the slide face 41 of the central hopper plate 21 is recited as possibly being provided with grooves to guide the traction means 33, 34, there is no recitation of similar grooves in the hopper flanks 22, 23. It is thus clear that the combination of Ruckmann and Hauck does not render obvious the subject invention, as recited in currently amended claim 55.

Independent claim 97 is the method equivalent of apparatus claim 55. The claim has been amended to recite the provision of a guide rail; the provision of at least one twisted section

in that guide rail; the locating of the guide rail extending from a roll changer through at least one printing group and through the folding apparatus, and the locating of the at least one twisted guide rail section adjacent the at least one former in the folder apparatus. The Ruckmann reference does not teach, or suggest the method for drawing in at least one web, as recited in currently amended claim 97. As discussed above, Ruckmann does not show a guide rail having a twisted guide rail section. Ruckmann further does not show the locating of such a twisted guide rail section adjacent a former. The secondary reference to Hauck was not applied in the rejection of independent method claim 97. Even a combination of the Ruckmann and Hauck references would not render obvious the method of drawing in a web of material, as recited in currently amended claim 97.

The assertion that the Ruckmann reference anticipates the storage device and separating device of the subject invention, as recited in claims 73-76, 85, 103 and 104 is respectfully traversed. In the subject invention, the storage device is recited as being usable to receive and to store paper web leading end holding devices. These are essentially the arms 19 depicted in Fig. 2. Such storage devices are the coils 41 depicted in Fig. 7, for example. In Ruckmann, the traction means are held in place, with spike-free portions aligned with the hopper plate 21. The structure and function of the two are not the same.

The secondary reference to Muth, U.S. patent No. 3,544, 454 is directed to a transverse cutting device. While this reference shows different arrangements of successive pairs of cooperating cutting cylinders, it does not show a device that is similar to the one recited in claims 65-72, 101 and 102. Those claims recite a device and a method for using the device to clip or sever a leading end of a web being drawn into the assembly before the web is fed to the transverse cutting device. The Muth patent depicts several devices for trimming and folding copies. In that device the leading and/or rear edges of products are continually trimmed. In the subject invention, only a leading end of a web is first trimmed before that leading end is directed to the transverse cutting device.

The secondary reference to Stein, U.S. patent No. 5,699,735 discloses a roll changer. It, however, does not provide the teachings of the subject invention which are missing in the Ruckmann reference.

In the course of the review of the Substitute Specification and drawings of the subject application, several minor errors were noted. The two replacement paragraphs correct minor typographical errors noted in those paragraphs. In Fig. 3 of the drawings, it was noted that the separating device 17, as described in paragraph 053 of the substitute specification, was improperly identified as "1." Replacement sheet 2 of the formal drawings corrects that minor error. These minor corrections to the Substitute Specification and to the drawings do not constitute any new matter.

SUMMARY

The Substitute Specification and the drawings have been amended to correct minor errors. These corrections do not add any new matter.

A number of the claims in the application have been amended to more clearly differentiate the subject invention over the prior art cited and relied on. It is believed that the claims now pending in the subject application are patentable over the prior art cited and relied on, taken either singly or in combination. Allowance of the claims, and passage of the application to issue is respectfully requested.

Respectfully submitted,

Peter Franz BECK
Manfred Wolfgang HARTMAN
Mathias Alexander METZ
Applicants

JONES, TULLAR & COOPER, P.C.
Attorneys for Applicant

Douglas R. Hanscom
Reg. No. 26,600

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JONES, TULLAR & COOPER, P.C.
P.O. Box 2266 Eads Station
Arlington, Virginia 22202
(703) 415-1500
Attorney Docket: W1.2379 PCT-US